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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,316	10/20/2003	David E. Hill	1266.0	4126

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EXAMINER	
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ART UNIT	PAPER NUMBER
1797	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/689,316	HILL ET AL.	
	Examiner	Art Unit	
	Paul S. Hyun	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

REMARKS

Claims 1-9 remain pending.

The new declaration and power of attorney filed by Applicants to correct a spelling mistake in one of the Applicant's name has been acknowledged.

The declaration filed by Applicants to remove McCarter et al. as prior art has been acknowledged. Consequently, the rejections cited in the previous Office action have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims **1-3 and 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenbaum et al. (US 2002/0102629 A1) in view of Brigante (US 4,347,133).

Greenbaum et al. disclose a device for detecting toxins in a water supply. The device comprises an inlet 20 for introducing a sample of water into a cell 14, an outlet 28 for discharging the sample, and a fluorimeter 12 situated in the cell for detecting toxic agents in the sample (see Fig. 4). The device further comprises an electronics package 30 that analyzes data from the fluorimeter and emits a signal indicating the detection of a toxin. The device disclosed by Greenbaum et al. differs from the claimed invention in that Greenbaum et al. do not disclose a holding means for holding the water sample for a pre-selected period of time before introducing the water sample into the interrogation cell.

Brigante discloses a device for sampling water (see Abstract). The device comprises a water conditioning unit for processing water samples (see claim 1). The reference discloses that cost of water sampling equipments can be reduced by minimizing the amount of sediment processed by the equipments (see line 60, col. 4-line 31, col. 5). To minimize the amount of sediment processed by the device, the device disclosed by Brigante comprises a holding tank that is connected to the water conditioning unit. The holding tank enables sediments taken up by the device to settle before the water sample is processed by the conditioning unit. In addition, the device comprises a filter situated between the holding tank and the water conditioning unit to prevent any sediment from entering the water conditioning unit (see claim 1). In light of the disclosure of Brigante, it would have been obvious to one of ordinary skill in the art to provide the device disclosed by Greenbaum et al. with a holding tank to minimize the amount of sediment processed by the device. Moreover, it would have been obvious to

provide a filter between the holding tank and the cell of the modified Greenbaum et al. device to prevent sediment from entering the cell.

With respect to claim 6, Greenbaum et al. disclose an alternative embodiment wherein the device is configured to be mobile (see Fig. 6 and [0048]). This embodiment is in the shape of a submarine or a boat comprising a hull, which acts as a buoy.

With respect to claim 7, the electronics package in combination with the fluorimeter of the Greenbaum et al. device are within the scope of the claimed "common data highway".

Claim **4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Greenbaum et al. in view of Brigante as applied to claims 1-3 and 5-7, and further in view of Kolber et al. (US 4,942,303).

Greenbaum et al. do disclose that the device is intended to analyze the fluorescence of photosynthetic organisms in water. However, neither Greenbaum et al. nor Brigante disclose a means for delaying the analysis of the water sample to allow the organisms to dark adapt.

Kolber et al. disclose a device for sampling water to analyze the activity of photosynthetic organisms (see lines 21-43, col. 9). The device is capable of measuring the turnover times of photosynthetic organisms in either dark or ambient conditions (see lines 45-49, col. 1). The device comprises a pipe leading to an opaque chamber where fluorescence measurements are made by a fluorimeter. To measure the turnover times of the photosynthetic organisms under dark condition, the length of the pipe leading to

the opaque chamber is made sufficient to enable the organisms to dark adapt. In light of the disclosure of Kolber et al., it would have been obvious to one of ordinary skill in the art to use the modified Greenbaum et al. device to measure the turnover times of the sampled photosynthetic organisms under dark condition since photosynthetic organisms display different behavior under dark conditions. To achieve this, it would have been obvious to delay the analysis of the water sampled by the modified Greenbaum et al. device to enable the photosynthetic organism to dark adapt.

Claims **8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenbaum et al. in view of Kolber et al.

Greenbaum et al. disclose a device for detecting toxins in a water supply. The device comprises an inlet 20 for introducing a sample of water into a cell 14, an outlet 28 for discharging the sample, and a fluorimeter 12 for detecting toxic agents in the water sample (see Fig. 4). The device further comprises an electronics package 30 that analyzes data from the fluorimeter and emits a signal indicating the detection of a toxin. The device disclosed by Greenbaum et al. differs from the claimed invention in that Greenbaum et al. do not disclose a means for automatically delaying the analysis of the water sample to allow dark adaptation of the photosynthetic organisms.

Kolber et al. disclose a device for sampling water to analyze activity of photosynthetic organisms (see lines 21-43, col. 9). The device is capable of measuring the turnover times of photosynthetic organisms in either dark or ambient conditions (see lines 45-49, col. 1). The device comprises a pipe leading to an opaque chamber where

fluorescence measurements are made by a fluorimeter. To measure the turnover times of the photosynthetic organisms under a dark condition, the length of the pipe leading to the opaque chamber is made sufficient to enable the organisms to dark adapt. In light of the disclosure of Kolber et al., it would have been obvious to one of ordinary skill in the art to use the Greenbaum et al. device to measure the turnover times of the sampled photosynthetic organisms under a dark condition since photosynthetic organisms display different behavior under dark conditions. To achieve this, it would have been obvious to provide a means to automatically delay the analysis of the water sampled by the Greenbaum et al. device to enable the photosynthetic organism to dark adapt.

With respect to claim 9, Greenbaum et al. disclose an alternative embodiment wherein the device is configured to be mobile (see Fig. 6 and [0048]). This embodiment is in the shape of a submarine or a boat comprising a hull, which acts as a buoy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH
11/16/07

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